Port Authorities and Coastal Management

One of a series of papers presented to the
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
by coastal user groups

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PUBLIC SEAPORT CONSIDERATIONS
APPLYING TO COASTAL ZONE PLANNING

prepared by

The American Association of Port Authorities

for the

Office of Coastal Zone Management

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PREFACE

The following information came to the Office of Coastal Zone Management in response to requests to various interest groups to present their views and concerns in relation to coastal management programs to planners of coastal management programs.

The Office of Coastal Zone Management thanks the American Association of Port Authorities for providing this report and we hope that it will provide coastal managers with a better feel for the concerns of port authorities.

The views presented here are those of the American Association of Port Authorities, and are passed on as a means of facilitating communication. No endorsement by the Office of Coastal Zone Management is intended or implied.

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INTRODUCTION

With the exception of the Federal interest in various aspects of navigational safety and sufficiency, U S port development, promotion and administration is in the hands of public agencies organized at the State, County, or Municipal level. As such, these agencies function according to the powers granted and within a structure of port vs. port, or region vs. region competition for trade. It is usually a friendly, but most certainly a serious, business rivalry. As an industry, ports are not assured political or economic survival. They must usually earn that status, and continue to earn it.

I am one who believes that the Coastal Zone Management Act of 1972 should be good for ports. I say this because where ports are unwelcomed neighbors in the coastal zone, the Act can do little that is hostile to ports that other individually available means cannot accomplish. On the other hand, a coastal zone plan that takes intelligent account of present and future port activity helps to stabilize the essential political and economic existence of ports. The issue thus narrows down to the plan as conceived, and how it cares for ports.

Those who framed the 1972 Act must have thought that ports were important clients of the coastal zone. Section 306. (c) (1) states, for example, that "prior to granting approval of a management program submitted by a coastal zone state, the Secretary shall find that the state has developed and adopted a management program for its coastal zone . . . with the opportunity of full participation by . . . port authorities". Subparagraph (2) of this section further requires that the "management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature". With ports handling $123 billion of the nation's foreign trade in 1974, generating over $4 billion in Customs duties annually, and a Federal investment in ship channels of about $1.7 billion since 1824, proper attention to port activity in coastal zone plans is clearly in the national interest. So much for the basic statistics.

In keeping with Section 306 of the 1972 Act, it would be the recommendation of the AAPA that all coastal zone plans be required to consider present and future port activities, and that a requirement also be established in submitting such plans to NOAA that calls for an evaluation of plan treatment of such activities in a separate, but annexed, document prepared by the concerned port agency. This will focus State attention on the port role in the coastal zone, and possibly surface two points of view on that role for consideration by NOAA in reviewing the coastal zone plan in fulfilling its concern for the port contribution to the national interest.

Each State has, and should have, a prerogative in its treatment of port activity within its own coastal zone planning. Though an admittedly strong and perhaps biased advocate of the legitimacy of port activity within the coastal zone, the AAPA cannot intrude upon this local or regional jurisdiction. However, it can suggest a process or an approach. This would be based on an assessment of existing and future port activity set against State policy in accommodating such activity. That activity which is to be accommodated by this policy should then be expressed in land and water resource demands distributed within the coastal zone so as to balance port efficiency with the characteristics of those land and water areas deemed to be most compatible with port activity. While other interim uses may be allowed for such alloted land and water areas, they should be made subject to dispossession as and when demanded by planned-for-port activity. In this process a realistic attitude must prevail that recognizes that while unspoiled beachfronts may not be ideal for port usage within the coastal zone, likewise current and future port-oriented land and water areas are not ideal hosts for beachfronts. It would be delightful from the multi-use planning concept to have shipping and swimming coexist, but such opportunities will be rare.

In summary, good coastal zone planning is good for ports, for it assures them a proper place in the coastal zone in serving the commerce of their region and that of the nation. Good and objective planning approaches should achieve this. We believe state planning agencies will be competent to design state plans that reflect the coastal zone priorities within their respective states. We are not as certain that those state agencies are fully aware how their treatment of ports within their state will affect those ports' competitive posture, and have regional and national implications. To that end the staff of AAPA has prepared "Public Seaport Considerations Applying to Coastal Zone Planning" to assist state planners with this broader perspective.

Alfred Hammon, Chairman
AAPA Committee III:
Ship Channels and Harbors

As presented before the Coastal Zone Management Advisory Committee on May 13, 1976

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CHAPTER I

Concerns Identified with the American Port System

Global Concerns: There is a positive correlation between population growth and trade growth, an absolute correlation between Gross National Product and trade. Long-term growth in port requirements is predictable.

National Concerns: The U.S. has a balanced system of ports, relatively evenly distributed along all four coastlines, - Atlantic, Pacific, Great Lakes and Gulf. This gives shippers a multiple choice of ports based on time/cost/convenience factors.

Regional Concerns: Ports may promote either population concentration or dispersal. Commercial ports depend on trade which is related to urban locations. Industrial ports may be supply or market oriented and more flexible as to location.

Local Concerns: Because shippers have freedom in routing and choice of port, uneven application of Coastal Zone Management will disturb interport competitive relationships, - to the detriment of some, benefit of others.

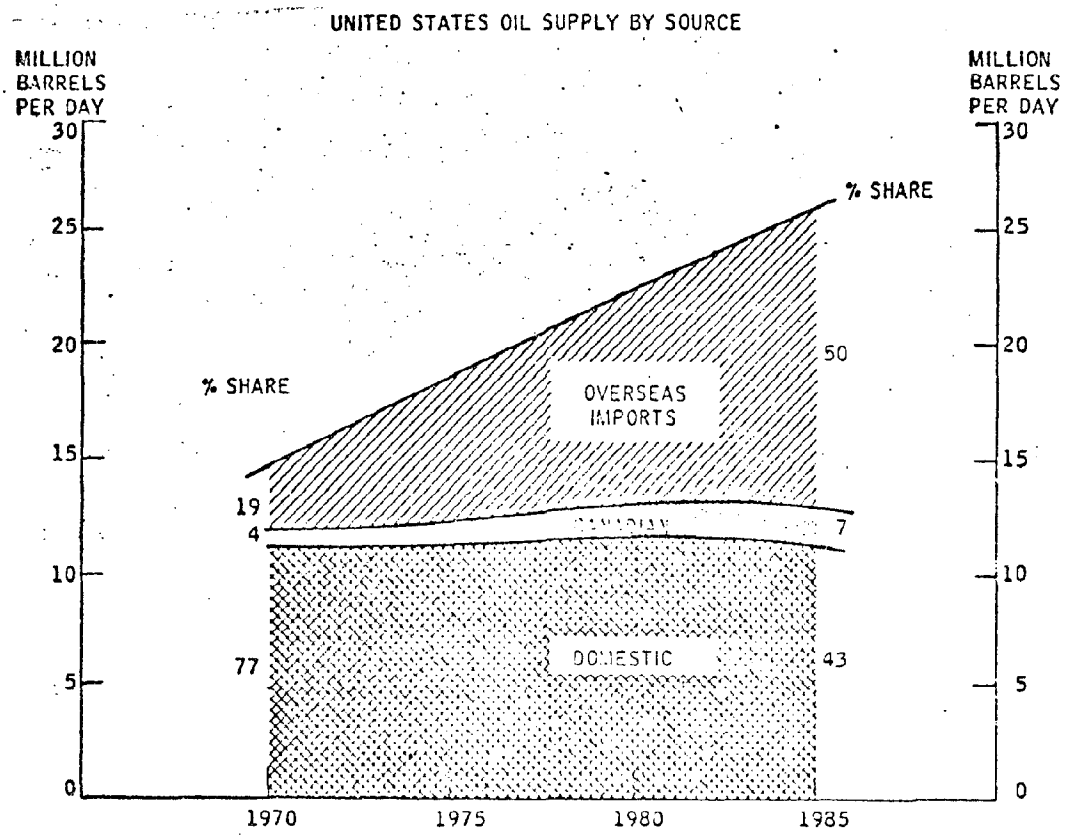
Financial Concerns: The U.S. port system handles more waterborne commerce than any other system in the world. Sometimes it is not recognized as a system because it is decentralized. Due to the size of the system, it is doubtful that centralized control or planning would work. Channels and related harbor improvements are provided by the federal government, piers and related port facilities are provided by local interests, - with federal and local investment in the system about co-equal.

Global Concerns

By any standard the United States of America is the focal point of the sealanes of the world. It is by far the largest consumer of raw materials on a global basis and the largest world distributor of manufactures; and is feeding substantial portions of the world population through its agricultural output. According to the 1974 statistics, U. S. trade as carried by vessel amounted to: /1

	Value (mil. dol.)	Shipping Wt. (mil. lb.)
EXPORTS	55,904.8	529,656.2
IMPORTS	67,165.2	893,790.0
TOTAL	123,070.0	1,423,446.2

The above figures may not be considered as static levels, most of the principle categories having shown strong growth curves in the post WW-II period. The dry cargo trades have shown a four-fold increase over the past 25 years. /2 Trends in petroleum imports and grain exports are a matter of daily reading.



It seems soundly predictable the U. S. trade growth will continue at an increasing rate into the long-term future. The principal indicators are as follows:

1. Political Trends. The trading capability of the United States is being extended into vast additional world areas.

2. Economic Trends. There has been greatly increased attention to the reduction or elimination of artificial trade barriers between nations, such as customs duties. A world common market is foreseen by some in the long term future. This would mean something similar to interstate commerce as enjoyed in the United States, on a world-wide basis.

3. Population Trends. As of midnight, March 29, 1976, world population reached a figure of 4-billion, an increase of one billion persons having taken place in the past (15)← years. /4 By way of contrast the previous one billion addition, from two billion to three billion, took 80 years. The prediction for year 2000 is a world population of 7-billion. /5

In the western hemisphere a late 1975 study notes that by 2000 Latin American population will have grown from 278-million to 645-million, outranking Europe, which will then have 527-million, and the United States and Canada combined (354-million). Mexico will have a larger population than Japan. /6

Because of the high percentages of population growth taking place in relatively undeveloped nations (presently unequipped with economies supportive of this kind of growth in terms of distribution of goods, services, and jobs) it is obvious that much support will come from the more developed nations, led by the United States. The support will consist of both consumer and capital goods, in hitherto unheard of quantities.

4. Shipping Growth. The three trends noted above are reflected in the rapid growth of the world fleet of cargo vessels. Such ships (in excess of 1,000 gross tons) totalled 22,591 as of June 30, 1975, representing a deadweight tonnage of 530,669,000 in all. Six months prior, as of December 30, 1974, these same totals were 22,449 and 503,348,000 respectively. A fleet addition of 142 ships representing 27,321,000 deadweight tons took place in the latest six-month period for which data is available. /7

Recent world shipping demands have already overwhelmed or severely taxed the port systems of such nations as India, Nigeria, Ecuador in recent months, with severe economic consequences and, where movement of foodstuffs has been restricted by port breakdowns, human suffering. As a reverse example, the longshore labor strikes of recent years which have shut down many or all of the United States ports have provided a working example of world wide effects of even a temporary paralysis of the United States port system.

Because it is predictable that the United States will continue as the central nation of the world in the flow of trade and commodities, the impacts upon the port system of the nation are obvious. The effectiveness and capacity of that system become matters of world-wide concern.

U. S. Seaborne Imports and Exports of Selected Bulk Commodities, 1969, and Projected 1980 and 2000

(Millions of short tons)

Item	1969	1980	2000
Imports			
Crude petroleum.....	51.3	280.5	965.8
Residual fuel oil.....	a/	168.5	129.2
Other petroleum products..	83.4	56.2	--
Iron ore.....	29.0	34.1	48.3
Alumina.....	1.8	5.7	15.2
Bauxite.....	16.3	15.9	15.9
Exports			
Food grains.....	14.5	23.0	25.0
Feed grains.....	16.4	32.0	54.0
Soybeans and meal.....	11.7	24.0	38.7
Bituminous coal.....	40.3	54.7	53.7
Phosphate rock.....	10.0	17.9	26.5

a/ Included in other petroleum products.

/3

National Concerns

Because it is the busiest trading nation in the world, the United States, as has been stated, is the principal focal point for the sealanes of world shipping.

Such shipping is of three general categories, namely:

1. Private carriage of company-owned commodities in company-owned vessels (such as crude or refined petroleum).
2. Contract carriage of commodities by shipping lines specialized in the trades (ore, petroleum, etc.)
3. Common carriage of various kinds of cargo by steamship lines catering to the needs of the broad range of world trade and general cargo.

In instances 1 and 2 above the port facilities involved are accessorial to a production facility such as a refinery or steel mill, so that the shipping and port operation is simply a link in a processing cycle. The type of heavy industry requiring location on or near deep water must either develop its own harbor/channel needs or select a site on a waterfront already developed in terms of deepwater access, namely a commercial harbor area. In this sense port-linked industry is heavily established in many of the port developmental areas of the United States, and the siting requirement for such industry is a matter of national concern.

In instance 3 above, steamship lines of the maritime nations of the world, U. S. companies included, are organized into "conferences" serving between common ranges of ports (U.S. North Atlantic/Northern Europe, for example) for purposes of setting rates for transporting world commerce. These rates, combined with inland transportation rates, port handling costs, and customs duties, determine the delivered price of U. S. goods abroad or foreign goods in the United States.

In the United States, cargo moving inland to final destination or to seaboard for shipment takes advantage of highly developed transportation system, consisting of 35,000 miles of interstate highways; 205,000 miles of railroad trackage; and 21,000 miles of developed waterways for barge traffic. /8

Forming the interface between the commercial ocean traffic and these inland transportation modes are ranges of public ports located on all coastlines. As public seaports they are open to the vessels of all nations enjoying trading relationships. In this manner every U.S. community is given access to world trade.

The principal national concerns relating to commercial shipping as served by the nation's port system are economic, demographic, and political.

The Seaport System as an Economic Factor

The U. S. seaport system may be viewed from several standpoints as a factor in the economic well being of the nation.

Consumer Values. The transportation/distribution system of the nation has developed in such a manner as to permit a high order of national marketing of consumer products. The advantages are universally enjoyed and too well known to bear repetition. Not as well appreciated is that the decentralized national port system has developed on a well dispersed basis as a product of the same forces and in much the same fashion.

In the matter of cargo routings from abroad the overseas supplier will specify a combination of steamship, rail/truck or inland water rates which will deliver to an inland U. S. destination at least cost. Truck and water rates are levied on a mileage basis; rail rates on a complex system of freight territory, commodity and class factors. In general, however, such costs are a function of the distance between producer and consumer. Careful port selection is critical in permitting world products to compete in the U. S. market to the advantage of the consumer.

Conversely the U. S. manufacturer competing in world markets will select routings to various overseas destinations which provide the most favorable delivered cost for the U. S. product competing in the foreign market. In the selection process he has the strong advantage of a range of ports from which to construct an optimum land-water combination.

In the simplest terms, the U. S. port system effectively extends a highly developed domestic distribution structure to world patterns. It does so by offering in itself a market place of selection and service factors on a competitive basis. Its ability to do so returns to local initiative factors that have provided the dispersal and responsiveness required in competitive world marketing.

Employment Values. The contribution of seaports to national employment may be extended to cover all persons employed in export and importing related activity. In terms of exports alone, a study made in the late 1960's showed that manufacturing and farming export related activity in States having port facilities were responsible for the employment of 2,500,000 persons. /9 On the basis of 2.5 dependents per job (employee plus 1.5 family members), it can be said that 5,230,000 regional residents rely on the flow of export trade.

A 1971 study by the American Association of Port Authorities indicated that 1,136,162 port community residents owed their livelihood to the existence of the port. Results are detailed under Local Concerns. /10

The AAPA study was developed for congressional testimony on trade legislation. The Congress of the United States together with all administrations since World War II has consistently adopted a policy of minimum restrictions upon world trade, and may be said to have done so on the premise of fuller employment. The "Smoot-Hawley" tariff Act of the 1920's, a highly restrictive measure, is generally regarded as a leading contributor to the world-wide depression which followed.

In terms of national concerns, it would be difficult to overstate the need for careful consideration of the employment relationships of the U. S. seaport system.

The Seaport System as a Demographic Factor

The history of urban development in the United States leaves little doubt that seaports are city builders. Maps showing density of manufacturing establishments depict densities closely tracking the nation's seaport locations. /11 There are spectacular modern-day examples such as the population growths of Houston and Los Angeles in the periods following the development of man-made harbors at these locations.

The ability of harbor development to attract heavy industry and accompanying satellite industrial development makes the port a center of employment and therefor a center of population growth.

In that context a national concern arises in the form of population dispersal as a desirable objective. Planning criteria which would concentrate seaport development into fewer sites will result in concentration rather than dispersal of coastal populations.

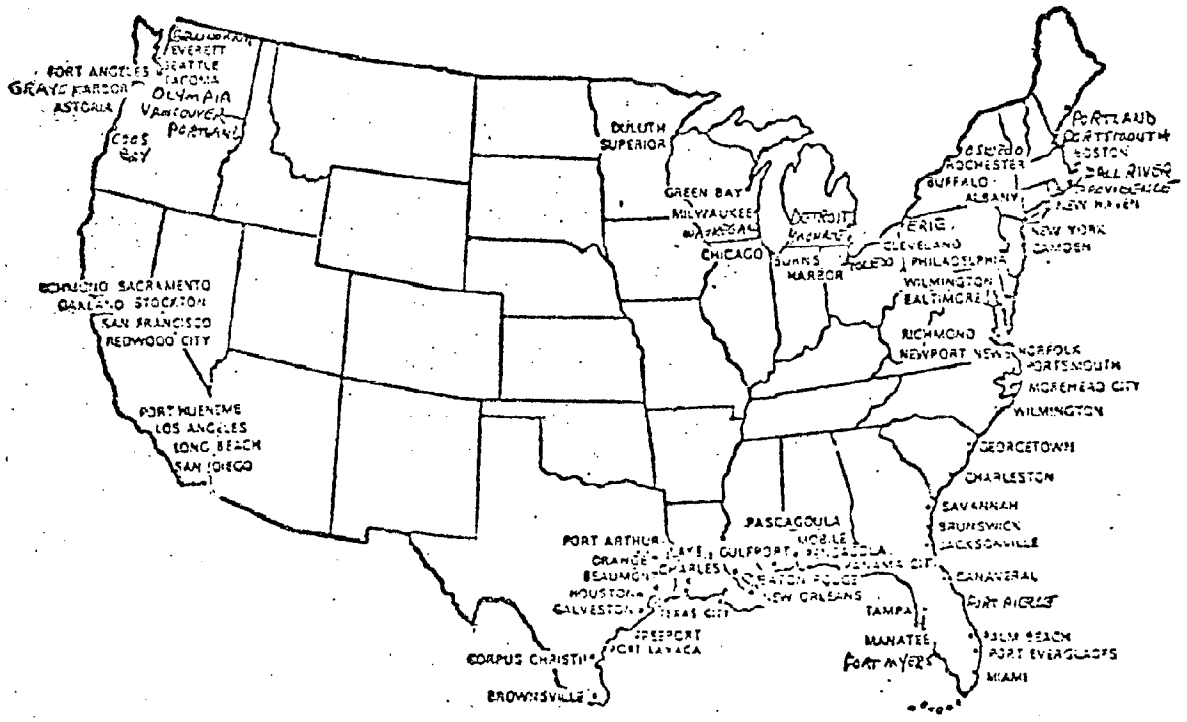
It should be noted that the westward development of the United States has resulted in a well dispersed pattern of coastal port communities under local public initiative. Exceptions are easily identifiable as originating from topographical constraints.

The Seaport System as a Political Factor

The highly responsive U.S. seaport system has a well proven ability to handle sometimes enormous peak-load requirements occasioned by the nation's international relationships. These arise in the form of grain movements (India, Russia); and wartime shipping requirements (World War II, Korea, Viet Nam).

The proven ability of the system to quickly respond to shipping demands of such vast scale gives it sound dimension as a vital national emergency resource.

From a planning standpoint it may be considered that the decentralized and competitive port system enjoyed by the United States is of the strongest national concern in terms of international relationships. Nationally, it is deeply interwoven with the manner in which the nation has developed in terms of population distribution, inland transportation systems and delivered costs. It is an essential force of the national economy.



WATERBORNE COMMERCE OF THE UNITED STATES, 1974 /1

TABLE 3--COMMERCE AT SELECTED PORTS EXCLUDING GREAT LAKES PORTS, CALENDAR YEAR 1974

(IN TONS OF 2,000 POUNDS)

PORT	TOTAL	FOREIGN		DOMESTIC				
				COASTWISE		INTERNAL		LOCAL
		IMPORTS	EXPORTS	RECEIPTS	SHIPMENTS	RECEIPTS	SHIPMENTS	
ALABAMA								
GUNTERSVILLE	1,353,428	-	-	-	-	1,075,428	278,000	-
MOBILE HARBOR	33,153,954	9,415,532	3,962,399	447,610	3,770,903	7,148,739	7,016,646	1,391,925
ALASKA								
ANCHORAGE	2,340,151	675,631	79	1,585,078	73,088	897	-	5,468
KETCHIKAN HARBOR	2,162,374	25,365	279,230	226,977	177,422	1,050,333	329,739	40,335
METLAKATLA HARBOR	313,125	-	87,073	8,547	2,353	172,605	42,545	-
SITKA HARBOR	959,901	8,912	178,504	156,583	8,938	605,426	11,246	-
SKAGWAY HARBOR	1,514,744	826,557	654,514	22,501	31	7,041	4,100	-
VALDEZ HARBOR	356,967	8,740	-	223,285	124,941	-	-	-
WHITTIER HARBOR	662,315	-	-	-	-	-	-	-
WRANGELL HARBOR	1,023,323	4	355,015	7,969	1,101	524,125	135,109	-
ARKANSAS								
HELENA	3,235,699	-	-	-	-	898,296	2,261,603	78,800
CALIFORNIA								
CARPINTERIA*	344,848	-	-	-	-	-	-	-
CRESCENT CITY HARBOR	262,309	-	-	257,562	150	4,597	-	-
EL SEGUNDO*	8,504,884	-	-	-	-	-	-	-
ENCINA*	729,747	-	-	-	-	-	-	-
ESTERO BAY*	4,509,752	-	-	-	-	-	-	-
HUMBOLDT HARBOR AND BAY	1,397,567	11,053	983,308	393,785	-	9,421	-	-
LONG BEACH HARBOR	26,893,767	11,942,630	6,124,693	6,221,169	1,669,493	523,430	253,541	153,541
LOS ANGELES HARBOR	25,919,357	10,462,756	3,347,517	4,986,121	5,272,918	453,557	522,197	874,291
MOSS LANDING HARBOR	713,173	221,724	-	487,749	-	3,700	-	-
OAKLAND HARBOR	6,811,770	1,467,876	1,538,653	952,339	1,667,624	957,151	255,998	2,132
PORT HUENEME	984,060	27,846	1,321	930,465	1,407	16,728	6,293	-
REDWOOD CITY HARBOR	447,135	28,525	95,625	-	35,141	279,421	7,320	-
RICHMOND HARBOR	14,763,822	3,431,873	634,045	5,208,471	3,133,807	1,459,153	792,701	103,773
SACRAMENTO	1,346,899	97,270	1,003,063	-	117,943	118,982	9,641	-
SAN DIEGO	2,115,074	454,312	778,727	677,567	1,997	190,441	-	12,530
SAN FRANCISCO HARBOR	3,913,071	913,837	1,318,107	47,576	52,538	920,307	656,422	4,234
SAN LUIS OBISPO*	1,545,005	-	-	-	-	-	-	-
STOCKTON	1,476,216	38,855	863,052	239,359	20,600	259,416	29,934	-
VENTURA HARBOR*	1,709,882	-	-	-	-	-	-	-
CONNECTICUT								
BRIDGEPORT HARBOR	3,295,195	1,786,258	50,624	1,285,394	100,126	2	-	72,781
NEW HAVEN HARBOR	12,054,957	3,071,207	229,300	7,007,450	1,435,987	-	-	311,013
NEW LONDON HARBOR	4,578,685	289,721	-	2,275,690	1,409,285	644	599,244	4,100
NORWALK HARBOR	799,974	-	-	798,010	-	-	-	1,964
STAMFORD HARBOR	989,766	-	-	889,695	95,691	-	4,380	-
DELAWARE								
NEW CASTLE AND VICINITY	12,084,268	4,652,111	-	1,357,785	4,078,011	1,227,193	765,904	3,264
WILMINGTON HARBOR	3,885,845	1,184,540	43,333	60,433	-	2,564,357	32,449	3,735
DISTRICT OF COLUMBIA								
WASHINGTON HARBOR	1,412,631	-	-	-	-	1,412,631	-	-
FLORIDA								
CANAVERAL HARBOR	3,241,780	1,684,670	6,108	236,625	7,199	12,462	1,294,696	-
CHARLOTTE HARBOR	2,660,184	497,033	597,744	372,713	414,203	1,495	776,915	80
FERNANDINA HARBOR	372,791	19	10,752	-	-	351,288	10,732	-
FORT PIERCE HARBOR	348,302	166,517	74,525	7,352	-	94,953	4,754	-
JACKSONVILLE HARBOR	14,794,938	5,328,990	1,707,452	4,854,792	975,894	117,133	1,635,442	175,235
MIAMI HARBOR	4,141,407	1,500,417	633,500	398,595	119,756	54,853	1,434,186	-
PALM BEACH HARBOR	1,097,230	759,540	215,100	90,170	20,851	10,205	354	-
PANAMA CITY HARBOR	1,891,204	280,237	296,537	13,227	31,497	972,880	295,774	-
PENSACOLA HARBOR	2,238,562	270,803	103,273	178,574	607	965,451	698,412	20,651
PORT EVERGLADES HARBOR	11,556,515	3,778,144	319,195	6,444,000	951,729	4,853	53,601	-
PORT ST. JOE HARBOR	545,777	43,371	45,940	264,452	-	32,245	164,791	-
ST. PETERSBURG HARBOR	306,354	1,102	-	53,367	-	252,305	20	-
TAMPA HARBOR	40,913,832	5,892,891	12,883,427	14,323,930	7,240,334	9,221	422,251	243,247
WEEDON ISLAND*	339,392	-	-	-	-	-	-	-
GEORGIA								
BRUNSWICK HARBOR	1,955,799	1,155,445	38,123	22,019	1,745	234,243	221,535	292,553
SAVANNAH HARBOR	9,698,679	4,251,975	1,981,240	1,962,471	441,352	159,607	375,044	495,939
HAWAII								
BARBERS POINT HARBOR, OAHU	4,360,221	2,660,826	30,272	765,416	902,707	-	-	-
HILO HARBOR, HAWAII	928,619	36,233	18	517,724	374,446	228	-	-

*-TONNAGE BY TYPE OF TRAFFIC NOT REPORTED.

TABLE 3--COMMERCE AT SELECTED PORTS EXCLUDING GREAT LAKES PORTS, CALENDAR YEAR 1974--CONTINUED

(IN TONS OF 2,000 POUNDS)

PORT	TOTAL	FOREIGN		DOMESTIC				
				COASTWISE		INTERNAL		LOCAL
		IMPORTS	EXPORTS	RECEIPTS	SHIPMENTS	RECEIPTS	SHIPMENTS	
HAWAII-(CONTINUED)								
HONOLULU HARBOR, OAHU	7,556,891	1,593,924	75,021	3,877,922	2,000,135	73	----------	9,819
KAHULUI HARBOR, MAUI	982,110	21,481	5,543	607,533	347,442	106	----------	----------
KAWAIHAE HARBOR, HAWAII	291,036	----------	----------	65,979	225,082	25	----------	----------
NAWILIWILI HARBOR, KAUAI	380,495	10,372	----------	172,163	197,938*	22	----------	----------
PEARL HARBOR, OAHU*	553,273	----------	----------	----------	----------	----------	----------	----------
INDIANA								
MOUNT VERNON	3,562,966	----------	----------	----------	2,765	600,125	2,960,076	----------
KENTUCKY								
LOUISVILLE	8,172,141	----------	----------	1,278	----------	7,611,411	403,348	156,104
LOUISIANA								
BATON ROUGE	59,126,282	12,427,379	7,659,659	1,720,703	5,964,686	11,236,930	19,305,875	811,050
LAKE CHARLES (CALCASIEU RIVER AND PASS)	16,564,654	2,254,874	1,073,999	405,759	2,178,654	7,101,372	2,353,427	696,565
LAKE PROVIDENCE	375,257	----------	----------	----------	----------	158,562	216,695	----------
NEW ORLEANS	144,169,409	13,536,567	37,188,092	2,378,195	14,706,997	45,679,732	23,429,135	4,250,695
MAINE								
BUCKSPORT HARBOR	1,153,520	599,316	----------	475,862	----------	----------	78,342	----------
PORTLAND HARBOR	27,606,379	22,791,223	16,980	3,738,762	894,369	5,363	1,441	158,543
SEARSPORT HARBOR	1,216,294	913,289	12,229	175,026	108,149	----------	----------	7,541
MARYLAND								
BALTIMORE HARBOR AND CHANNELS	59,891,068	25,231,358	12,875,867	6,265,547	2,238,044	5,030,235	2,597,448	5,652,569
MASSACHUSETTS								
BEVERLY HARBOR	254,136	----------	----------	254,090	----------	46	----------	----------
FALL RIVER HARBOR	5,122,186	2,308,177	----------	2,594,674	185,299	47,344	64,383	2,323
NEW BEDFORD AND FAIRHAVEN HARBOR	340,874	62,763	5,541	177,200	30,562	39,452	18	25,339
PLYMOUTH HARBOR (INCL. NORTH PLYMOUTH)	264,472	257,312	----------	3,379	----------	3,781	----------	----------
PORT OF BOSTON	25,728,945	8,377,307	881,399	12,215,952	3,059,092	362	----------	1,174,853
SALEM HARBOR	2,030,773	1,340,949	----------	677,934	7,582	5	----------	4,303
MINNESOTA								
MINNEAPOLIS	2,529,965	----------	----------	----------	----------	821,632	1,707,334	----------
ST. PAUL	5,143,251	----------	----------	----------	----------	2,685,574	2,457,677	----------
MISSISSIPPI								
BILOXI HARBOR	1,811,557	----------	----------	----------	----------	1,805,275	5,623	652
GREENVILLE	2,427,011	----------	----------	1,258	----------	1,894,382	521,017	8,354
GULFPORT HARBOR	821,024	495,700	235,476	----------	1,000	69,313	19,43[illegible]	50
NATCHEZ	1,162,865	----------	----------	----------	----------	421,305	741,560	----------
PASCAGOULA HARBOR	13,373,153	1,742,716	1,833,552	942,939	2,493,661	1,497,179	4,447,733	125,433
VICKSBURG	2,854,131	----------	----------	----------	1,037	2,031,692	539,551	11,851
MISSOURI								
PORT OF KANSAS CITY	1,934,916	----------	----------	----------	----------	245,994	842,343	516,579
PORT OF METROPOLITAN ST. LOUIS	21,662,116	----------	----------	3,807	13,145	6,643,017	13,754,335	1,250,511
NEW HAMPSHIRE								
PORTSMOUTH HARBOR	2,364,290	1,056,345	7	1,004,603	249,729	1	----------	53,639
NEW JERSEY								
CAMDEN - GLOUCESTER	10,852,964	1,464,422	441,793	3,312,440	16,494	1,951,500	3,572,745	93,573
PAULSBORO AND VICINITY	29,593,361	13,190,907	62,935	4,479,761	1,731,719	3,424,795	6,434,397	263,344
TRENTON HARBOR	1,190,989	----------	----------	----------	----------	1,190,989	----------	----------
NEW YORK								
HEMPSTEAD HARBOR	3,229,077	----------	----------	1,388,813	1,840,264	----------	----------	----------
HUNTINGTON HARBOR	256,925	----------	----------	255,654	----------	----------	----------	267
PLATTSBURG	524,402	----------	----------	----------	----------	----------	----------	----------
PORT CHESTER HARBOR	315,537	----------	----------	32,400	----------	122,744	----------	155,193
PORT JEFFERSON HARBOR	4,454,031	171,406	49	3,551,451	424,144	15	----------	7,734
PORT OF ALBANY	9,510,042	1,911,559	442,907	1,232,370	26,595	4,741,144	1,125,154	3,653
PORT OF NEW YORK	175,295,611	54,655,637	7,862,342	31,512,431	22,657,127	6,249,573	17,324,156	45,474,252
RONDOUT HARBOR	653,322	----------	----------	----------	37,791	115,900	493,471	----------
TARRYTOWN HARBOR	667,239	----------	----------	115,847	----------	551,542	----------	----------

*- TONNAGE BY TYPE OF TRAFFIC NOT REPORTED.

TABLE 3--COMMERCE AT SELECTED PORTS EXCLUDING GREAT LAKES PORTS, CALENDAR YEAR 1974--CONTINUED

(IN TONS OF 2,000 POUNDS)

PORT	TOTAL	FOREIGN		DOMESTIC				
		IMPORTS	EXPORTS	COASTWISE		INTERNAL		LOCAL
				RECEIPTS	SHIPMENTS	RECEIPTS	SHIPMENTS	
NORTH CAROLINA								
MOREHEAD CITY HARBOR	1,512,683	717,172	422,385	171,140	----------	89,393	112,793	----------
PORT OF WILMINGTON	8,718,081	3,624,154	212,744	3,497,302	112,738	125,952	1,086,273	56,781
OHIO								
CINCINNATI	8,833,459	----------	----------	3,582	----------	6,237,129	2,439,916	152,532
OREGON								
COOS BAY	7,632,831	1,411	5,467,427	658,840	363,924	8,316	83,253	1,069,755
OREGON SLOUGH (NORTH PORTLAND HARBOR)	521,221	----------	----------	----------	----------	437,186	84,035	----------
PORT OF ASTORIA	2,233,754	59,356	1,080,395	13,641	101,854	777,144	98,244	103,120
PORT OF PORTLAND	20,770,885	2,244,948	6,821,155	3,238,613	245,719	4,259,063	1,994,210	1,997,181
TILLAMOOK BAY AND BAR	365,251	----------	----------	362,268	1,007	1,983	----------	----------
YAQUINA BAY AND HARBOR	319,256	----------	126,220	----------	15,427	6,463	171,146	----------
PENNSYLVANIA								
ALIQUIPPA - ROCHESTER	6,138,447	----------	----------	----------	3,058	5,429,352	705,592	447
CHESTER	445,349	49	----------	3,072	120	437,971	137	----------
MARCUS HOOK AND VICINITY	23,446,255	9,514,823	145,539	5,999,797	2,237,809	2,442,313	2,692,099	414,214
PENN MANOR AND VICINITY	9,173,396	6,660,581	245,929	82,712	129,403	724,236	1,351,970	----------
PHILADELPHIA HARBOR	59,920,175	33,112,210	6,024,791	2,439,538	3,271,546	13,208,258	2,914,139	1,949,696
PITTSBURGH	9,604,267	----------	----------	----------	----------	7,137,136	2,234,333	232,298
PORT OF CLAIRTON - ELIZABETH	9,696,522	----------	----------	----------	----------	8,914,837	781,985	----------
RHODE ISLAND								
PROVIDENCE RIVER AND HARBOR	8,856,215	2,246,198	369,692	5,399,461	368,607	103,323	309,350	59,587
SOUTH CAROLINA								
CHARLESTON HARBOR	8,992,563	3,112,711	1,302,072	3,076,500	358,354	247,382	795,814	108,526
GEORGETOWN HARBOR (WINYAH BAY)	1,619,986	170,522	263,706	317,316	19,837	837,436	11,174	----------
TENNESSEE								
CHATTANOOGA	1,796,770	----------	----------	----------	1,105	1,709,179	86,486	----------
KNOXVILLE	357,812	----------	----------	----------	----------	335,977	21,835	----------
MEMPHIS	11,096,770	----------	----------	9,791	431	9,213,717	1,583,591	289,141
PORT OF NASHVILLE	2,946,916	----------	----------	----------	----------	2,793,016	153,900	----------
TEXAS								
BEAUMONT	33,503,880	6,205,398	4,232,110	819,576	11,977,524	5,390,917	4,572,673	306,683
BROWNSVILLE	2,836,654	475,025	409,220	----------	191,113	899,422	861,854	----------
CORPUS CHRISTI	32,844,400	11,142,579	4,597,736	577,258	9,944,787	1,599,355	4,445,421	556,254
FREEPORT HARBOR	6,898,947	1,760,171	1,445,884	766,771	1,227,623	2,042,494	1,570,012	65,992
GALVESTON (GALVESTON CHANNEL)	7,171,226	1,093,402	4,110,327	99,645	976,207	351,123	540,520	----------
HARBOR ISLAND	5,406,031	2,048,800	2,729	58,740	952,138	570,732	1,752,393	----------
HOUSTON (HOUSTON SHIP CHANNEL)	89,155,339	18,762,974	15,908,254	5,233,638	19,705,893	13,853,404	11,751,314	3,885,757
MATAGORDA SHIP CHANNEL	4,930,654	3,937,491	222,195	85,381	----------	400,049	253,363	----------
ORANGE	1,331,360	812	71,337	----------	----------	956,145	303,365	----------
PORT ARTHUR	27,799,593	7,788,306	3,021,435	3,457,428	8,334,197	1,055,705	4,119,595	22,327
SABINE PASS HARBOR	390,370	----------	----------	----------	5,203	160,874	224,293	----------
TEXAS CITY (TEXAS CITY CHANNEL)	20,151,777	2,504,359	457,070	590,054	5,159,722	6,193,953	4,942,355	12,539
VICTORIA	3,135,921	----------	----------	----------	----------	835,286	2,300,535	----------
VERMONT								
BURLINGTON HARBOR	555,953	----------	----------	----------	----------	555,953	----------	----------
VIRGINIA								
NORFOLK HARBOR	55,304,017	6,912,630	33,344,683	2,469,190	547,619	3,035,541	5,949,602	1,041,507
PORT OF HOPEWELL	1,156,422	97,272	316,725	103,641	64,867	433,549	141,325	----------
PORT OF NEWPORT NEWS	17,652,455	1,062,564	10,481,779	87,229	233,741	2,797,337	3,017,760	15
PORT OF RICHMOND	1,544,901	73,310	28,427	2,734	109	1,407,233	33,092	----------
WASHINGTON								
ANACORTES HARBOR	3,971,825	1,457,477	97,767	353,913	953,844	248,305	835,721	----------
BELLINGHAM BAY AND HARBOR	1,945,601	382,785	247,280	19,932	167,239	413,726	453,435	251,542
EVERETT HARBOR AND SNOHOMISH RIVER	4,321,156	646,342	1,245,655	14,193	4,417	1,402,491	262,254	722,757
GRAYS HARBOR AND CHEHALIS RIVER	3,495,352	12,658	2,263,525	141,553	54,329	512,451	1,375	528,779
HAMMERSLEY INLET	1,126,472	----------	----------	----------	----------	99,291	411,350	625,231
NEAH BAY	324,454	----------	----------	----------	----------	3,392	321,252	----------
OLYMPIA HARBOR	1,215,135	72	300,529	----------	----------	52,552	861,561	1,421
PORT ANGELES HARBOR	2,922,519	155,866	1,372,415	73,765	44,204	519,317	537,112	266,337
PORT GAMBLE HARBOR	495,367	----------	----------	----------	74,921	135,228	285,818	----------
PORT OF KALAMA	1,252,325	32,322	737,594	15,287	----------	429,717	33,323	----------
PORT OF LONGVIEW	7,697,511	330,591	3,935,640	463,257	57,677	1,950,127	840,229	50,279
PORT OF VANCOUVER	3,142,254	1,142,455	769,194	14,437	26,559	651,341	504,244	4,319
PORT TOWNSEND HARBOR	1,338,391	211,848	57,895	16,715	----------	757,676	294,197	----------

TABLE 3--COMMERCE AT SELECTED PORTS EXCLUDING GREAT LAKES PORTS, CALENDAR YEAR 1974--CONTINUED.

(IN TONS OF 2,000 POUNDS)

PORT	TOTAL	FOREIGN IMPORTS	FOREIGN EXPORTS	DOMESTIC COASTWISE RECEIPTS	DOMESTIC COASTWISE SHIPMENTS	DOMESTIC INTERNAL RECEIPTS	DOMESTIC INTERNAL SHIPMENTS	LOCAL
WASHINGTON-(CONTINUED)								
SEATTLE HARBOR	14,251,989	3,670,448	2,020,258	1,776,318	1,845,666	3,564,850	1,017,383	414,066
TACOMA HARBOR	7,600,036	2,174,357	3,165,595	405,933	93,398	1,076,572	446,696	228,465
WEST VIRGINIA								
HUNTINGTON	12,020,612	--------	--------	--------	--------	705,641	11,301,554	13,417
PUERTO RICO						INTRATERRITORY		
MAYAGUEZ HARBOR	308,156	143,089	3,257	57,973	5,949	82,358	15,530	--------
PONCE HARBOR	960,508	475,994	119,484	62,727	230,517	71,949	41,233	604
SAN JUAN HARBOR	11,804,689	4,208,171	451,204	4,450,714	1,643,945	742,570	300,393	2,889
VIRGIN ISLANDS								
CHRISTIANSTED HARBOR, ST. CROIX	542,722	68,037	25,054	4,390	138	279,425	165,648	--------
ST. THOMAS HARBOR	371,706	85,449	17,855	1,119	476	241,930	24,844	3

TABLE 4--COMMERCE AT SELECTED PORTS ON THE GREAT LAKES, CALENDAR YEAR 1974

(IN TONS OF 2,000 POUNDS)

PORT	TOTAL	FOREIGN IMPORTS CANADIAN	FOREIGN IMPORTS OVERSEAS	FOREIGN EXPORTS CANADIAN	FOREIGN EXPORTS OVERSEAS	DOMESTIC LAKEWISE RECEIPTS	DOMESTIC LAKEWISE SHIPMENTS	DOMESTIC COASTWISE RECEIPTS	DOMESTIC COASTWISE SHIPMENTS	INTERNAL	LOCAL
ILLINOIS											
PORT OF CHICAGO	45,865,579	1,375,876	1,234,958	1,553,582	1,075,715	11,060,406	4,999,564	7,093	52,485	21,452,725	3,072,975
WAUKEGAN HARBOR	474,335	--------	--------	--------	--------	474,160	--------	--------	--------	--------	175
INDIANA											
BUFFINGTON HARBOR*	2,367,775	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
BURNS WATERWAY HARBOR	6,053,763	61,693	112,439	102,785	4,982	5,301,435	137,979	--------	--------	330,512	18
GARY HARBOR*	10,954,691	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
INDIANA HARBOR	17,144,765	2,243,440	155,931	--------	--------	9,759,422	3,342,473	14,863	--------	1,122,811	525,405
MICHIGAN											
ALABASTER*	409,239	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
ALPENA HARBOR	3,082,334	71,323	--------	39,456	--------	659,109	2,312,416	--------	--------	--------	--------
CALCITE*	14,747,439	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
DRUMMOND ISLAND	2,909,592	--------	--------	233,021	--------	1,520	2,675,051	--------	--------	--------	--------
ESCANABA*	9,615,077	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
FRANKFORT HARBOR	839,645	--------	--------	--------	--------	597,147	232,718	--------	--------	9,733	47
GRAND HAVEN HARBOR AND GRAND RIVER	2,215,373	52,000	--------	--------	--------	405,451	753,577	--------	--------	--------	1,004,345
HOLLAND HARBOR	368,831	--------	--------	--------	--------	365,739	--------	--------	--------	--------	72
LUDINGTON HARBOR	2,176,535	--------	--------	--------	--------	1,522,005	655,695	--------	--------	--------	135
MANISTEE HARBOR	526,769	--------	--------	--------	--------	222,710	306,035	--------	--------	--------	24
MARQUETTE HARBOR	1,036,070	--------	--------	--------	--------	1,035,931	--------	--------	--------	--------	139
MARYSVILLE	577,663	--------	--------	--------	--------	577,663	--------	--------	--------	--------	--------
MUSKEGON HARBOR	2,568,138	18,227	1,936	--------	4,926	2,361,733	157,092	--------	--------	15,155	71
PETOSKEY PENN DIXIE HARBOR*	501,509	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
PORT DOLOMITE*	4,436,921	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
PORT GYPSUM*	273,027	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
PORT HURON	308,098	10,855	4	45	4,968	292,226	--------	--------	--------	--------	--------
PORT INLAND*	4,324,129	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
PORT OF DETROIT	27,541,167	1,760,758	1,442,538	165,354	483,229	22,541,353	573,528	59,724	--------	2,409	475,754
PRESQUE ISLE HARBOR	3,118,370	--------	--------	--------	--------	43,687	3,074,633	--------	--------	--------	--------
ST. CLAIR	3,075,056	14,701	--------	--------	--------	3,060,355	--------	--------	--------	--------	--------
ST. JOSEPH HARBOR	433,073	--------	--------	--------	--------	428,842	--------	--------	--------	4,129	103
STONEPORT*	9,859,217	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
TRAVERSE CITY HARBOR	405,158	--------	--------	--------	--------	405,158	--------	--------	--------	--------	--------
MINNESOTA											
DULUTH - SUPERIOR HARBOR	40,344,702	182,880	108,649	2,748,436	2,050,507	2,831,553	32,471,781	--------	--------	--------	926
SILVER BAY*	11,420,140	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
TACONITE HARBOR*	12,543,129	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
TWO HARBORS (AGATE BAY)	9,768,565	--------	--------	--------	--------	--------	9,768,560	--------	--------	--------	5
NEW YORK											
OSWEGO HARBOR	902,343	824,435	6,999	7,186	--------	52,266	--------	--------	--------	11,413	40
PORT OF BUFFALO	10,442,034	3,614,100	7,039	83,139	11,929	6,142,420	350,402	--------	--------	72,237	162,923
ROCHESTER (CHARLOTTE) HARBOR	309,866	265,497	6	--------	--------	44,363	--------	--------	--------	--------	--------
OHIO											
ASHTABULA HARBOR	10,652,259	1,016,070	112,931	3,025,850	237	5,498,001	1,191,238	--------	--------	--------	9,932
CLEVELAND HARBOR	21,933,574	3,344,223	366,273	107,765	65,712	16,880,815	923,452	--------	--------	2,547	42,212
CONNEAUT HARBOR	14,536,435	1,182,073	--------	4,699,055	--------	6,634,135	2,145,943	--------	--------	--------	28
FAIRPORT HARBOR	2,937,601	244,108	--------	87,929	--------	2,225,235	435,297	--------	--------	--------	111,372
HURON HARBOR	3,325,132	167,245	--------	65,231	4,275	3,088,233	--------	--------	--------	--------	145
LORAIN HARBOR	9,076,591	102,919	--------	--------	--------	6,477,793	2,023,349	--------	--------	--------	472,527
MARBLEHEAD*	765,491	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
SANDUSKY HARBOR	4,220,604	4,753	--------	2,289,907	80,441	51,537	1,747,105	--------	--------	--------	53,354
TOLEDO HARBOR	21,556,519	785,934	327,467	3,700,138	542,271	5,273,348	10,523,479	--------	--------	32,052	174,822
PENNSYLVANIA											
ERIE HARBOR	953,187	142,949	19,391	29,230	8,345	458,781	--------	--------	--------	--------	216,515
WISCONSIN											
ASHLAND HARBOR	378,339	--------	--------	--------	--------	378,255	--------	--------	--------	--------	84
DULUTH - SUPERIOR HARBOR	40,344,702	182,880	108,649	2,748,436	2,050,507	2,831,553	32,471,781	--------	--------	--------	926
GREEN BAY HARBOR	2,531,437	61,292	29,824	--------	97,832	2,342,573	18,815	--------	--------	--------	1,133
KEWAUNEE HARBOR	1,251,171	--------	--------	--------	--------	442,33[illegible]	8[illegible]8,847	--------	--------	--------	--------
MANITOWOC	667,437	66,943	--------	--------	--------	436,31[illegible]	164,179	--------	--------	--------	8
MILWAUKEE	4,263,9[illegible]2	344,449	91,858	164,721	304,337	2,997,124	354,726	--------	--------	4,224	463
PORT WASHINGTON HARBOR	676,302	--------	--------	--------	--------	676,329	--------	--------	--------	--------	33

* TONNAGE BY TYPE OF TRAFFIC NOT REPORTED

Regional Concerns

There are several kinds of regional concerns of interest to coastal planning. Two of these are found at the extremes of population density.

Low Population Densities

In coastal areas of low population density the seaport may be the major employment center of a considerable region. Planning decisions adversely impacting such a port will have disproportionately wide repercussions.

High Population Densities

Seaport concerns arising in highly industrialized and/or urbanized areas relate to the substantial degree of overlapping of various political entities and jurisdictions.

Such major port areas as urban and industrial estuaries remain confronted with the same social and environmental constraints followed in less complex regions, but with fewer coordinated developmental policies in which port development occupies an agreed-upon level of importance.

In such an area, port development decisions on a decentralized and purely local basis under which priorities vary involve a substantial number of Federal, State and local approvals with public hearings, permits, environmental assessments and the like. These steps add to project costs, but more importantly they involve excessive delays, denying the project on a timely basis.

Properly developed in an objective way, coastal zone management plans for such regions could be an asset to port activity. Such a plan would recognize that a port is an urban and industrial center whose coastal zone management goals do not equate with those of an ocean beachfront. Swimming, water skiing, fish nourishment and bird sanctuaries may not necessarily be compatible with port activities and should perhaps be stressed elsewhere, though not necessarily excluded where it is sensible to encourage such activities within the port area.

In this sense the coastal zone management process would set goals structured to the realities of the different sectors of the zone. /12

Migrations and Growth Developments

In another regional context, planning criteria should recognize that the coastal areas of the United States are under the continual impact of change, as the nation continues to develop in a fluid manner. Coastal regions simply cannot be treated in a static sense. Significant examples are:

Population shifts. Continuing movement of population to the South and West must be considered in terms of its long range impact upon ports and shipping.

Industrial shifts. Continuing movement and development of industry must be considered as affecting coastal planning. Some recent examples are:

Migration of textile industry to the South Atlantic states

Development of the petrochemical industry in the central and west Gulf Coast.

Development of export markets for U.S. minerals including:
- North Carolina and Florida phosphate.
- Western coal and ore via Pacific Coast ports.
- Eastern coal via mid-Atlantic ports.

Petroleum Import trends including:
- Alaska pipeline impacts upon Pacific Coast ports.
- Impacts of offshore port encouragement by Gulf Coast States.

Ore import trends and impacts on all coastlines.

Primary metals industries of the Great Lakes.

Such existing or emerging regional port impacts require careful evaluation in the development of plans by individual states.

Local Concerns

Concerns of the local port community in coastal zone planning are those of the consumer, port employment, and port economic impacts.

Consumer concerns.

Consumer concerns relate to large ports in highly urbanized surroundings wherein the city in itself is a major contributor to the import and export pattern of the port as a localized hinterland. In these instances there is a close relationship, built in, as between port services and production and consumption by the population base. Restrictions on development will impact the consumer.

Employment concerns.

Employment concerns have already been alluded to under "National Concerns". From the localized standpoint the port as employer is profiled in the accompanying Table entitled "Survey of U.S. Port Area Employment Dependent on International Trade and Waterborne Transportation". Indicated is a port oriented work force in excess of one-million persons on the ocean seaboards, who could be adversely impacted by developmental restrictions.

Economic Impact Concerns.

Consumer values and employment are results of the ability of the seaport to generate economic input. There have been various exercises in the measurement of seaport economic impact, probably the most widely recognized being "The Economic Impact of the Port of Baltimore to Maryland", done for the Maryland Port Authority (now Maryland Port Administration) by Stanley J. Hille and James E. Suelflow for the Department of Business Administration of the University of Maryland. Some principal findings were:

A ton of general cargo (non-bulk) leaves more than $32.00 in the economy of the port area. more here

A ton of trans-shipped bulk cargo (moving through the port) leaves $7.69 in the economy of the port area.

The processing (in the port area) of a ton of port dependent primary metals puts $27.43 into the community (import ores, etc.).

The shipping out of finished products from port dependent primary metals leaves $6.62 per ton in the community.

In the same fashion, other port dependent raw materials imported (chemicals, fertilizers, gypsum, sugar, refractory products, etc.) leave $41.85 per ton in the community.

The annual tonnages of these commodities being known quantities the researchers were able to show a primary impact of $631,000,000 generated by activity of the Port of Baltimore. Using a standard multiplier of 2.5 the port's economic impact was rated at $1.5-billion or 11.8% of the Gross State Product of Maryland.

The general cargo impact figure was constructed as follows:

Vessel Disbursements	$ 15.281
Crew Expenditures	.557
Inland Transportation	9.685
Insurance and Banking	.360
Harbor Services	3.360
Shipbuilding and Repair	2.329
Government Expenditures	.757
TOTAL PER TON	$ 32.329

It seems clear that in the economic sense an enormous responsibility descends upon the coastal zone planner in the avoidance of planning rigidities which would adversely affect this kind of dollar input. On the other hand, there is in coastal zone planning an opportunity to develop the full consideration of the seaport as a coastal zone asset through well-ordered compatible planning.

SUMMARY OF U.S. PORT AREA EMPLOYMENT DEPENDENT ON INTERNATIONAL TRADE AND WATERBORNE TRANSPORTATION

	NO ATLANTIC	SO ATLANTIC	GULF	SO PACIFIC	NO PACIFIC	GREAT LAKES	OTHER	TOTAL
STEVEDORES	4,056	2,344	4,407	2,609	466	625	91	14,598
REGISTERED LONGSHOREMEN	34,930	6,852	12,390	10,371	3,113	4,277	15	71,948
CASUALS	2,595	3,339	7,010	7,150	2,103	1,916	5	24,118
TOWING & BARGING	7,199	594	8,305	1,227	1,448	798	44	19,615
PILOTAGE	454	305	480	159	129	54		1,581
FREIGHT FORWARDERS & CUSTOMS BROKERS	11,529	602	1,724	1,377	279	1,891	1	17,403
WAREHOUSEMEN & EXPORT PACKERS	8,066	2,250	5,495	8,595	353	1,067		25,826
FINANCING	23,922	7,323	580	1,010	130	655	14	33,634
MARINE INSURANCE	3,049	200	818	1,360	277	255	5	5,964
MARITIME EQUIPMENT SUPPLY & SERVICE	15,616	2,432	2,596	6,928	1,047	402	28	29,049
SHIP CONSTRUCTION & REPAIR	51,609	4,393	37,170	12,910	3,369	1,415	141	111,007
STEAMSHIP COMPANIES	21,712	4,729	7,933	8,825	2,347	459	-	46,005
LOCAL MOTOR CARRIERS	12,186	1,413	2,407	13,690	815	2,068	18	32,597
OVER-THE-ROAD MOTOR CARRIERS	36,624	2,660	3,504	6,375	1,248	2,026	-	52,437
RAILROADS	30,381	945	6,391	2,100	458	2,057	9	42,341
DOMESTIC FORWARDERS	3,016	543	3,629	722	161	381		8,452
EXPORT/IMPORT WHOLESALING, ETC.	56,593	5,131	2,426	7,061	21,133	2,449	25	94,818
MARINE TERMINAL CONSTRUCTION & MTNC.	3,195	1,020	2,447	1,884	715	418	46	9,725
LOCAL & U.S. GOVERNMENT	45,293	2,587	5,746	3,058	1,726	2,580	7	60,997
PORT AUTHORITIES	9,334	2,583	2,949	2,520	1,120	467	82	19,055
FOREIGN TRADE ZONES	113	3,500	8	33		25		3,679
CHAMBERS OF COMMERCE, ASSOCIATIONS, ETC.	1,548	33	225	207	41	195	7	2,256
CONSULTANTS	3,580	20	36	194	52	78		3,960
TIDEWATER INDUSTRIES	148,295	58,678	97,227	35,702	26,341	16,093	205	382,541
FOREIGN GOVERNMENTS	4,153	157	310	3,708	100	265		8,693
OTHER	1,190	752	2,665	8,838		80	338	13,863
TOTAL	540,238	115,385	218,878	148,613	68,971	42,996	1,081	1,136,162

Financial Concerns

There are several seaport impacts not widely appreciated or known, but none-the-less highly significant to the United States.

Seaport Contribution to the Balance of Payments

Because more than 90-percent of U.S. trade is carried in foreign flag vessels, much of the $32.00 per ton of general cargo economic impact is in the form of foreign funds being expended in the U.S. port area. Port services by U.S. seaports represent a significant factor in the U.S. Balance of Payments picture.

Customs Collection

Customs collections on imports at U.S. seaports represent a substantial contribution to the Federal Treasury, being on the order of 3 to 4 billion dollars annually.

CHAPTER II

Public Port Administrations of the United States

Port Administrations as Political Entities: Although port organizations within any one state will be similar because they are creatures of state law, no two ports are identical, - and ports will not be equal in their input to Coastal Zone Management planning.

Port Facility Investment and Growth: There is more price resistance in necessities than in luxuries, and return on investment in transportation infrastructure is under constant pressure. Studies indicate an overall average return from port facilities between 4% and 5%. This explains the withdrawal of private enterprise and the growing predominance of authorities in providing over 80% of U.S. postwar investment in facilities, - successfully.

Technological Responsiveness: Even though port facilities are marginally self-supporting, this introduces business discipline in combination with the authority concept. This has produced a competitive climate in the port industry that requires public port agencies to have an alert and continually vigilant management attitude. The result has been management professionalization and a delicately balanced and responsive national port system. It has become a world model and created strong trends among nations of more collectivistic bent.

Checks, Balances and Disciplines: There are built-in disciplines to prevent port overbuilding. The benefit/cost ratio test is a prerequisite to authorization of federal investment in channels. The local investment in facilities is subject to the marketplace, - competition and/or the economic analysis underwriters require for the bonds used to finance facilities. Those facilities are also subject to the requirements for safety, security and environmental protection.

Port Administrations as Political Entities

It has been noted that the public port agencies of the United States are entities of government. Virtually all are creatures of State government. Many of these entities derive their powers and obligations directly from the State as Departments or special Districts. Others are indirectly State controlled, powers having been passed through a municipality or county, which may in turn create a port authority.

Allowing for state-to-state variation, the enabling legislation and related statutes for autonomous port authorities generally have several common features. In many cases the non-autonomous State, City or County port agency (all collectively referred to as "authorities" hereafter) also incorporates these same features:

A public trust is created in the interests of commerce and navigation.

A Commission is created for purposes of upholding the trust. The manner of appointment of members of the Commission (usually citizens serving without compensation) by the governor or mayor is described as is the manner of ratification by council or assembly. In some States (Oregon except for Portland; Washington; Florida except for Jacksonville, Miami and Tampa; isolated examples in Texas) board members run for office and are elected officials serving at token salaries.

The Act authorizes the Authority to do those things (build, finance, promote, develop) necessary to the public port enterprise and its objectives.

There is customarily in Authority statutes a power of eminent domain, giving condemnation authority as required in the development of the port facilities.

There are arrangements provided in the area of public finance, authorizing the issuance of general obligation bonds under conditions of public referendum; revenue bonds under prescribed conditions; authorizing appropriations from the public treasury; and outlining the manner of submitting budgets.

Many port authorities are empowered to retain their earnings for purposes of meeting obligations, including financing of capital improvements. Others return earnings to the treasury of the parent government and submit an annual budget.

There are some regional patterns as to types of port authorities. State Authorities predominate on the Atlantic Coast from Maine through Georgia with the exception of the City administrations at Providence, Rhode Island and Wilmington, Delaware. The Manhattan Island piers are administered by the City of New York; and the City of Philadelphia administers its piers through a public corporation. State agencies in various forms apply for Maine, Connecticut, New Hampshire and Massachusetts. Bi-state authorities, the result of compacts approved by the U.S. Congress, apply for the New York/New Jersey port area other than the city piers; and for the Delaware River area. State authorities are responsible for port administration in South Jersey (Camden), Maryland, Virginia, North Carolina, South Carolina, and Georgia.

The ports of Florida, with the exception of Jacksonville, Miami and Tampa are predominately navigation districts at the county level; Jacksonville and Tampa represent specially created port authorities, while the Port of Miami is operated by a department of the Miami "Metro" government.

The state agency applies for Alabama. The ports of New Orleans, Baton Rouge, and Lake Charles derive their authority from the State of Louisiana. A state agency applies for the Mississsippi ports of Gulfport and Pascagoula. The ports of Texas derive their powers from the state through navigation districts at the county level. An exception is Galveston, operated under city auspices through a board of trustees.

City port commissions apply throughout California, with the exception of San Diego, at which there is a regional port district encompassing a number of communities. The ports of Oregon and Washington operate on navigation district patterns descended from the states. Great Lakes port authorities are mixed, showing both city and state type administrations and special district authorities.

Port Facility Investment and Growth

Historically, the total local public investment in port facilities had reached $861,000,000 by 1941. /13 Since World War II an additional $3,243,093,326, predominately local public funds, was expended for deepwater pier and wharf facilities (Jan., 1946 - Dec., 1972). More than one-third of the post war expenditure took place in the late 1960's - early 1970's period, reflecting the trade growth impacts previously outlined. An additional $1,484,450,440 was spent or committed for the period 1973 -1977, an increase over the 1966 - 1972 period. /14

Total investment by the local public agencies which comprise the U.S. seaport system may be estimated today at approximately $5-billion. The funds have been drawn from, in descending order, bond issues (general obligation and revenue), reinvestment of earnings, local taxes, and appropriations by state and city government.

Technological Responsiveness

Again reflecting the responsiveness of the U.S. system, increasing trends toward specialized types of port facilities are shown in the following breakdown: /14

Type of Facility	Percent of Total Investment 1966/72	1973/77
Conventional General Cargo	30% ($330,185,920)	23% ($332,282,996)
Specialized General Cargo (Container, RO/RO, Bargeship)	39% ($432,553,410)	38% ($561,671,164)
Liquid and Dry Bulk Cargo	31% ($352,889,996)	39% ($590,496,280)

It is clear from the above that increasing amounts of capital funds are being spent by U.S. public port agencies, with added input from private industry, to assist in the objectives of high technology shipping. It should be pointed out, however, that this is not necessarily being done at the expense of the conventional general cargo facility. The 23% figure for 1973/77 represents a dollar total in excess of the 30% figure for 1966/72. The percentage drop is because of the tremendous additional input for high technology facilities.

Said in another way, the U.S. port system is flexible enough to respond to high technology shipping demands without sacrifice to the conventional facility. The latter remains the standard of the world, particularly among under-developed countries, as confirmed by Panama Canal transit data and new vessel orders.

Checks, Balances and Disciplines

The relatively regular dispersal of deepwater coastal ports, and resulting population dispersal, owes something to federal/local ship channel relationships in addition to market place control through competitive forces. Ship channels and turning basins serving local public ports are a federal responsibility and their development, and later improvement by deepening and widening, are done by congressional approval. A lengthy and arduous process of public input accompanies such a project. Central to the congressional decision is the economic impact statement (ratio of economic benefit to the port area versus the cost of the channel). Obviously if the area is already being served by a nearby port, economic benefit becomes negligible.

Federal Project Steps. The principal steps of a federal project, which takes some 12 to 14 years from initiation to completion, are as follows:

Channel Project Authorization. /15

a. Local interests inform their Congressman of an improvement they desire, and request that Federal provision of the desired improvement be investigated.

Two courses of action are open to the Congressman. He may request the Senate or House Committee on Public Works to authorize a review of any previous reports for the area to determine whether any modification in such reports would be advisable. If a review report is appropriate, the Committee will adopt a resolution authorizing the Corps of Engineers to make the review. If no previous report has been made, the Congressman may introduce a bill in Congress to authorize the desired investigation. When passed the bill becomes authorization for the study.

b. When the investigation is authorized, the Chief of Engineers assigns it to the appropriate Division Engineer, who refers it to a District Engineer for accomplishment. Following the receipt of the directive and funds for the studies, the District Engineer, in cooperation with the local interest and other Federal agencies, begins the necessary engineering and economic investigations.

A public hearing is held to ascertain the views of local people as to the extent and type of improvement desired and the need for the improvement. After consideration of these views, and data obtained through field and office studies, the District Engineer develops a plan of improvement believed best suited to the problem area. Estimates of benefits and costs are prepared, and requirements of local cooperation are determined. Local interest must indicate their support of the proposed improvement and their ability to meet the requirements of local cooperation. These data and recommendations of the District Engineer, including an environmental impact statement, are included in the report. A favorable recommendation by the District Engineer is largely dependant upon local acceptance and economic justification of the proposed project.

c. The Division Engineer reviews the report, adds his recommendations, and transmits it to the Chief of Engineers. The report is referred to the Board of Engineers for Rivers and Harbors for review. All interested parties receive a public notice that summarizes the findings and recommendations to the District and Division Engineers, and informs them that they may present their views on the matter to the Board of Engineers for Rivers and Harbors.

d. The Board of Engineers for Rivers and Harbors reviews the reports of the District and Division Engineers, and considers any additional information received from interested parties. The Board prepares its report, including recommendations, and transmits it to the Chief of Engineers, who prepares the report for submittal to Congress. Interested Federal agencies and Governors of affected States are given opportunity to comment on the recommended improvements. After consideration of these comments, the Chief of Engineers submits the report to the Secretary of the Army, who obtains the views of the Office of Management and Budget before transmitting the report to Congress.

e. The House and Senate Committee on Public Works may hold hearings on the report with a view toward formulation of a bill including authorization of the recommended project. If the project is included in an authorization bill, enactment of this bill constitutes authorization of the project.

Channel Project Appropriations.

Funds for engineering design and construction of authorized port projects are not provided by the authorizing act, but are supplied by subsequent appropriation acts. The procedure for obtaining the appropriation of funds is very similar to the procedure outlined for authorization. First, the request is made for preconstruction planning funds, which will be utilized to complete all required planning and detailed engineering prior to award of the first major contract. This fund request must be incorporated into a Presidential Budget and approved by Congress. Close liaison is maintained by the Corps with local interests through this process.

Upon completion of preconstruction planning, the Corps makes a request for construction funds. These also must be incorporated into a Presidential Budget and approved by Congress through the process of Congressional Hearings. Here again, support by local interests is important in securing funds for a given project. Congress, of course, determines the rate at which funds will be appropriated -- and construction proceeds accordingly.

The role of the local interests throughout this process is critical. There are about 53 points in the authorization process where progress can be slowed or stopped, depending upon the interest, coordination and support given a project by the local interests. During the planning period, there are 20 more points in time when the proposal is subject to the will of the people. Finally, there are 18 additional time-points from the beginning request for construction funds until Congress actually makes the appropriation.

Maintenance of Existing Projects

Maintenance of existing projects to authorized depths is performed through an annual maintenance budget based on local needs and processed up from District to Division to Chief of Engineers; thence through the Office of Management and Budget; and through the appropriate committees of Congress and finally, Congressional appropriation.

Appropriation Totals. The all-time federal investment in ship channels since 1824 totals about $1.7 billion, about one-third of the total of local investment in piers and wharves./16

Pier and Wharf Project Steps. Like the federal channel, construction of pier and wharf facilities by local interests requires economic justification and public approvals.

Construction permits are required by the federal authorities including environmental impact statements.

Economic justification must be proven as follows:

a. To the voting public if financing is to be through a general obligation bond issue pledging the full faith and credit of a governmental entity; and to the bond market.

b. Through appropriate local government channels and to the bond market if financing is to be done through revenue bonds pledging indentified or general port revenues toward debt service and retirement.

c. To appropriate governmental entities responsible for budgetary control if financing is to be from reinvestment of revenues.

d. To the voting public in instances involving tax millages for developmental financing.

The above procedures are time consuming and complicated, including lengthy consultation with legal firms, engineers, contractors, financial institutions and other specialists. For purposes of bond financing a special study involving feasibility will be made by a firm of independent consultants who will issue a report on the project.

Port Facility Redundancy

Under the series of rigid disciplines, checks and balances recited above, it is difficult to conceive that any redundant port facilities could have made an appearance in the last half-century. Never-the-less local pride or political zeal has given birth to occasional exceptions. These are sooner or later seized upon as the answer to some new impact of world commerce and become productive.

Redundancies also occur through obsolescense; piers and wharves so outdated in design that they no longer are a marketable factor; and through major changes in shipping patterns. The outstanding example of the latter was the temporary oversupply of pier space on the Pacific Coast following the disappearance of intra-coastal shipping during World War II and prior to the beginnings of the strong Pacific Basin trade flows of the last several decades.

The question today is whether, in the face of the above constraints and the equally preponderant question of available funds, facilities can indeed be provided in timely fashion against projected demand.

Permits for activities in Navigable Waters or Ocean Waters

(b) *Laws requiring authorization of structures or work.* (1) Section 9 of the River and Harbor Act approved March 3, 1899 (30 Stat. 1151; 33 U.S.C. 401) prohibits the construction of any dam or dike across any navigable water of the United States in the absence of Congressional consent and approval of the plans by the Chief of Engineers and the Secretary of the Army. Where the navigable portions of the waterbody lie wholly within the limits of a single State, the structure may be built under authority of the legislature of that State, if the location and plans or any modification thereof, are approved by the Chief of Engineers and by the Secretary of the Army. The instrument of authorization is designated a permit. Section 9 also pertains to bridges and causeways but the authority of the Secretary of the Army and Chief of Engineers with respect to bridges and causeways was transferred to the Secretary of Transportation under the Department of Transportation Act on October 16, 1966 (80 Stat. 941, 49 U.S.C. 1655g(6)(A)).

(2) Section 10 of the River and Harbor Act approved March 3, 1899 (30 Stat. 1151; 33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. The construction of any structure in or over any navigable water of the United States, the excavation from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters are unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The instrument of authorization is designated a permit or letter of permission. The authority of the Secretary of the Army to prevent obstructions to navigation in the navigable waters of the United States was extended to artificial islands and fixed structures located on the outer continental shelf by section 4(f) of the Outer Continental Shelf Lands Act of 1953 (67 Stat. 463; 43 U.S.C. 1333(f)).

(3) Section 11 of the River and Harbor Act approved March 3, 1899 (30 Stat. 1151; 33 U.S.C. 404) authorizes the Secretary of the Army to establish harbor lines channelward of which no piers, wharves, bulkheads, or other works may be extended or deposits made without approval of the Secretary of the Army. Regulations (ER 1145-2-304) have been promulgated relative to this authority and published at § 209.150. By policy stated in those regulations effective May 27, 1970, harbor lines are guidelines only for defining the offshore limits of structures and fills insofar as they impact on navigation interests. Except as provided in paragraph (e)(1) of this section below, permits for work shoreward of those lines must be obtained in accordance with section 10 of the same Act, cited above.

(4) Section 13 of the River and Harbor Act approved March 3, 1899 (30 Stat. 1152; 33 U.S.C. 407) provides that the Secretary of the Army, whenever the Chief of Engineers determines that anchorage and navigation will not be injured thereby, may permit the discharge of refuse into navigable waters. In the absence of a permit, such discharge of refuse is prohibited. While the prohibition of this section, known as the Refuse Act, is still in effect, the permit authority of the Secretary of the Army has been superseded by the permit authority provided the Administrator, Environmental Protection Agency, under sections 402 and 405 of the Federal Water Pollution Control Act (PL 92-500, 86 Stat. 816, 33 U.S.C. 1342 and 1345).

(5) Section 14 of the River and Harbor Act approved March 3, 1899 (30 Stat. 1152; 33 U.S.C. 408) provides that the Secretary of the Army on the recommendation of the Chief of Engineers may grant permission for the temporary occupation or use of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States. This permission will be granted by an appropriate real estate instrument in accordance with existing real estate regulations.

(6) Section 1 of the River and Harbor Act of June 13, 1902 (32 Stat. 371; 33 U.S.C. 565) allows any persons or corporations desiring to improve any navigable river at their own expense and risk to do so upon the approval of the plans and specifications by the Secretary of the Army and the Chief of Engineers. Improvements constructed under this authority, which are primarily in Federal project areas, remain subject to the control and supervision of the Secretary of the Army and the Chief of Engineers. The instrument of authorization is designated a permit.

(7) Section 404 of the Federal Water Pollution Control Act (PL 92-500, 86 Stat. 816, 33 U.S.C. 1344) authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits, after notice and opportunity for public

hearings, for the discharge of dredged or fill material into the navigable waters at specified disposal sites. The selection of disposal sites will be in accordance with guidelines developed by the Administrator of the Environmental Protection Agency (EPA) in conjunction with the Secretary of the Army. Furthermore, the Administrator can prohibit or restrict the use of any defined area as a disposal site whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such areas will have an unacceptable adverse effect on municipal water supplies, shell fish beds and fishery areas, wildlife or recreational areas.

(8) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (PL 92-532, 86 Stat. 1052, 33 U.S.C. 1413) authorizes the Secretary of the Army to issue permits, after notice and opportunity for public hearings, for the transportation of dredged material for the purpose of dumping it in ocean waters. However, similar to the EPA Administrator's limiting authority cited in paragraph (b)(7) of this section, the Administrator can prevent the issuance of a permit under this authority if he finds that the dumping of the material will result in an unacceptable adverse impact on municipal water supplies, shellfish beds, wildlife, fisheries or recreational areas.

(9) The New York Harbor Act of June 29, 1888, as amended (33 U.S.C. 441 *et seq.*) provides for the issuance of permits by the Supervisors of the New York, Baltimore, and Hampton Roads Harbors for the transportation upon and/or discharge in those harbors of a variety of materials including dredgings, sludge and acid. The District Engineers of New York, Baltimore and Norfolk have been designated the Supervisors of these harbors, respectively. However, section 511 (b) of the Federal Water Pollution Control Act (PL 92-500, 86 Stat. 816) provides that the discharge of these materials into navigable waters shall be regulated pursuant to that Act and not the New York Harbor Act except as to the effect on navigation and anchorage. In addition, section 105(a) of the Marine Protection, Research and Sanctuaries Act of 1972 (PL 92-532, 86 Stat. 1052) provides that all permits for discharges in ocean waters shall only be issued in accordance with the Act after April 23, 1973. Therefore, the supervisors of these three harbors will no longer issue permits under the authority of the New York Harbor Act, as amended, for transportation and/or discharge of these materials.

(c) *Related Legislation.* (1) Section 401 of the Federal Water Pollution Control Act (PL 92-500; 86 Stat. 816, 33 U.S.C. 1411) requires any applicant for a Federal license or permit to conduct any activity which may result in a discharge into navigable waters to obtain a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility.

(2) Section 307(c)(3) of the Coastal Zone Management Act of 1972 (PL 92-583, 86 Stat. 1280, 16 U.S.C. 1456(c)(3)) requires any applicant for a Federal license or permit to conduct an activity affecting land or water uses in the State's coastal zone to furnish a certification that the proposed activity will comply with the State's coastal zone management program. Generally, no permit will be issued until the State has concurred with the applicant's certification. This provision becomes effective upon approval by the Secretary of Commerce of the State's coastal zone management program.

(3) Section 302 of the Marine Protection, Research, and Sanctuaries Act of 1972 (Pub. L. 92-532, 86 Stat. 1052, 16 U.S.C. 1432) authorizes the Secretary of Commerce, after consultation with other interested Federal agencies and with the approval of the President, to designate as marine sanctuaries those areas of the ocean waters or of the Great Lakes and their connecting waters or of other coastal waters which he determines necessary for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or esthetic values. After designating such an area, the Secretary of Commerce shall issue regulations to control any activities within the area. Activities in the sanctuary authorized under other authorities are valid only if the Secretary of Commerce certifies that the activities are consistent with the purposes of Title III of the Act and can be carried out within the regulations for the sanctuary.

(4) The National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) declares the national policy to encourage a productive and enjoyable harmony between man and his environment. Section 102 of that Act directs that "to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall * * * insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision making along with economic and technical considerations * * *." See also paragraph (l)(1) of this section on environmental statements.

(5) The Fish and Wildlife Act of 1956 (16 U.S.C. 742a, et seq.), the Migratory Marine Game-Fish Act (16 U.S.C. 760c-760g) and the Fish and Wildlife Coordination Act (16 U.S.C. 661-666c) and other acts express the concern of Congress with the quality of the aquatic environment as it affects the conservation, improvement and enjoyment of fish and wildlife resources. Reorganization Plan No. 4 of 1970 transferred certain functions, including certain fish and wildlife-water resources coordination responsibilities, from the Secretary of the Interior to the Secretary of Commerce. Under the Fish and Wildlife Coordination Act and Reorganization Plan No. 4, any Federal Agency which proposes to control or modify any body of water must first consult with the United States Fish and Wildlife Service, the National Marine Fisheries Service, as appropriate, and with the head of the appropriate State agency exercising administration over the wildlife resources of the affected State.

(6) The Federal Power Act of 1920 (41 Stat. 1063; 16 U.S.C. 791a et seq.), as amended, authorizes the Federal Power Commission (FPC) to issue licenses for the construction, operation and maintaining of dams, water conduits, reservoirs, power houses, transmission lines, and other physical structures of a power project. However, where such structures will affect the navigable capacity of any navigable waters of the United States (as defined in 16 U.S.C. 796), the plans for the dam or other physical structures affecting navigation must be approved by the Chief of Engineers and the Secretary of the Army. In such cases, the interests of navigation should normally be protected by a recommendation to the FPC for the inclusion of appropriate provisions in the FPC license rather than the issuance of a separate Department of the Army permit under 33 U.S.C. 401 et seq. As to any other activities in navigable waters not constituting construction, operation and maintenance of physical structures licensed by the FPC under the Federal Power Act of 1920, as amended, the provisions of 33 U.S.C. 401 et seq. remain fully applicable. In all cases involving the discharge of dredged or fill material into navigable waters or the transportation of dredged material for the purpose of dumping in ocean waters, Department of the Army permits under section 404 of the Federal Water Pollution Control Act, or under section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 will be required.

(7) The National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470) created the Advisory Council on Historic Preservation to advise the President and Congress on matters involving historic preservation. In performing its function the Council is authorized to review and comment upon activities licensed by the Federal Government which will have an effect upon properties listed in the National Register of Historic Places.

(8) The Interstate Land Sales Full Disclosure Act (15 U.S.C. 1701 et seq.) prohibits any developer or agent from selling or leasing any lot in a subdivision unless the purchaser is furnished in advance a printed property report including information which the Secretary of Housing and Urban Development may, by rules or regulations, require for the protection of purchasers. In the event the lot in question is in a wetlands area, the report is required by Housing and Urban Development regulation to state that no permit has been granted by the Corps of Engineers for the development under Section 10 of the River Harbor Act of 1899.

(9) The Water Resources Planning Act (42 U.S.C. 1962 et seq.) provides for the possible establishment upon request of the Water Resources Council or a State of river basin water and related land resources commissions. Each such commission shall coordinate Federal, State, interstate, local and nongovernmental plans for the development of water and related land resources in its area, river basin, or group of river basins. In the event the proposed Corps of Engineers permits to non-governmental developers or other agencies under section 10 of the River and Harbor Act of 1899 and section 404 of the Federal Water Pollution Control Act may affect the plans of such river basin commissions, the permits will be coordinated with the appropriate concerned river basin commissions. The same is true of Corps of Engineers authorizations to private persons or corporations to improve navigable rivers at their own expense under section 1 of the River and Harbor Act of 1902.

CHAPTER III

Coastal Zone Management and Public Port Development

In a linear sense the question of port development is not a large one among coastal planning elements. The ocean shoreline of the United States measured point-to-point at 100-ft intervals totals 93,653 miles /17. Developed seaport waterfronts occupy 1,650 miles, or approximately 2% of the total. /18 There appears to be ample dimensional latitude for planning for ports and port linked industry in a positive and constructive manner befitting the global, national and local concerns expressed in this discussion.

In addition to dimensional latitude, there appears to be excellent opportunity, in terms of the environmental objectives of a balanced coastal plan, for a compatability-oriented approach. Such an approach would identify harbor systems as vital elements of the plan provided for specified usages. Its objective would be rational port development in a positive and timely manner, as an alternative to the restrictive multi-jurisdictional case-by-case permitting which presently applies.

Central to a compatible approach is an appreciation of the commercial port and accompanying merchant shipping operations as being of minimal environmental concern in their present proportional use of the coastal zone. Further that the economic disciplines previously described are sufficiently restrictive in themselves to contain future expansions to necessary minimums.

It should be further understood that the harbor as an environmental concern due to degredation of water quality and contamination of bottom sediments stems not from its commercial shipping activities but from the seaport attraction for industry and populations, with resulting industrial wastes and sewage outfalls. It is suggested that this concern is essentially one of water quality control, and ought to be answerable to day-by-day regulation rather than to restrictive spatial conceptualizations which may impact merchant shipping and the port-linked industrial base in a manner conducive to migrations.

Seaport Criteria in Coastal Zone Planning

Employing a balanced approach will require the establishment of criteria for making and evaluating coastal zone management plans in relation to port development concerns. Despite the latitude for compatibility, the State-by-State variables are extreme, both in attitude and historic development, in addition to the uneven segmentation of the planning units themselves (State coastlines). A further consideration arises in the impacts of State plans on other States.

The following suggested criteria have been carefully selected as planning and evaluation tools permissive of a balanced and rational approach to port development as an aspect of coastal zone management.

CRITERION NO. 1

The State plan should identify its public port districts and their boundaries, and should further identify the legislatively constituted responsibilities of the respective public port agencies.

The purpose of this criterion is for primary recognition of the local initiative aspects of the decentralized and competitive national port system.

CRITERION NO. 2

The State plan should contain an authoritative assessment of future volumes of that portion of the nation's ocean commerce which may be expected to require the services of the State's port districts.

The purpose of this criterion is to assure that planning involving ports is done from baseline data identified with the State's primary coastal responsibilities in behalf of the nation's ocean commerce. Under-planning or over-planning on the basis of State opportunism should be carefully avoided as artificially diversionary of the flow of commerce. The impact of such practice upon other coastal states is obvious, as is the impact of such practice upon concerns previously identified as national, regional, or local.

CRITERION NO. 3

The State plan should contain an assessment by port agencies of its coastal area of future port development and expansion necessary to serve the traffic flow estimates and the extent to which increased traffic can be accommodated within the spatial resources of existing port districts.

The purpose of this criterion is as follow-on to the base-data requirement set forth in criterion no. 2; and further that assessments of port capability be done by port professionals. Port capacity has so many variables as to defy precise measurement. It is geared to an irregular series of peak loads and involves the entrance and clearance of vessels and of inbound and outbound cargoes, the timing of which will be unscheduled in the operation of a public berth.

CRITERION NO. 4

Nothing in the State plan should inhibit port development within established port areas including dredging, filling, and the making of land for marine terminal sites. To the extent that property is under the control of the public port agency, identification of such property as being dedicated for port expansion should be included in the plan.

The purpose of this criterion is to permit the fullest possible development of existing port areas as a response to growth demands. Further, to aid in the timely development of such areas through the dedication process.

CRITERION NO. 5

The State plan should include, on an alternative use or a multiple use basis, identifications of alternative areas for future port development as determined by potential for deep water access and inland transport interface.

The purpose of this criterion is for the long range accomodation of ocean commerce volumes in excess of the capacities of existing port facilities and to create future opportunities for local initiative and population dispersal as previously outlined by allowing new port areas to come into being as required.

Seaports in Coastal Zone Plans

Coastal zone legislation gives planners wide latitude as to how ports are to be incorporated in individual state plans. Although these plans may take a wide variety of forms, they have a common objective of bringing activities in the coastal zone into compliance with standards compatible with the intent of coastal zone management.

The Coastal Zone Management Act of 1972 is not specific about how such compliance is to be achieved. However, the Office of Coastal Zone Management, NOAA, has drafted guidelines to assist planners in evaluating whether their plans will achieve an appropriate level of compliance. These guidelines, or "Threshold Papers", examine compliance from seven different aspects. Based on that subdivision, comment is extended as follows:

1. Boundaries. In defining the boundaries of the Coastal Zone, the port district may be identified under Acceptable Approaches as "Administrative"; and also as "Urban or Greatly Altered Areas" under "dependency of use upon water sites".

2. Permissable Uses. The Act specifies that ports are activities in the Coastal Zone of regional benefit "greater than local concern" and "uses in the national interest." Hence priority designation is warranted.

3. Geographic Areas of Particular Concern. There are few alternatives in port location. Ports must be located where land and water meet, - preferably in protected waters with convenient overland transportation. This is a "highest and best use" of a limited resource, - coastline, - particularly when the secondary and tertiary economic benefits are considered.

4. Public and Governmental Involvement. The Act requires each plan to show "how the state views its port activity, its present and future port needs, and how the plan cares for these matters." (PL 92-538, Section 306 (c) (8)). Also, Section 306 (c) (1) requires "full participation" by "port authorities" in state development and adoption of plans. Submission of a plan by a state to NOAA should be accompanied by a separate commentary from the concerned port agencies certifying that it has reviewed the state treatment, and indicating where the agency agrees and disagrees with it.

5. State-Federal Interaction and National Interests. Section 307 (f) of the Act requires incorporation of federal water and air pollution requirements. By their nature, because they are engaged in interstate commerce, ports have been exposed to the whole array of federal regulations regarding clean air, clean water, safety and security. Almost invariably they will be in compliance with federal laws and "national interest."

6. Organization. Because of the importance of Corps of Engineer channel improvements and long exposure to the regulation cited in #5, many ports have a longer history of communication with federal agencies rather than with other state or local agencies. The port agencies may or may not be organizationally structured for input to state coastal zone planners, - and even if so, there may be hidden political or economic constraints. There should be some test of whether communications actually work. Quite possibly some new networks will be needed.

7. Authorities. Since port agencies are creatures of state government, application of state coastal zone plans will be almost automatic. It is unlikely that any new authority will be required to enforce control over seaport activities.

Individual Port Authority Data

It is not believed that the American Association of Port Authorities is an appropriate channel of communication between State/local; State/Federal; or local/Federal elements of government as to the passing of definitive data from individual ports. It will therefor be noted that this presentation has been concerned with port data in an industry-wide sense.

Data from individual public port authorties may be obtained through the use of the attached list of the principal public port agencies of the United States. If desired, the Association will be glad to assist OCZM in the collection of such data after member ports have reviewed this paper. An attachment lists other port data sources of interest.

FOOTNOTES

1. "Waterborne Commerce of the United States", Calendar Year 1974. Part 5 - National Summaries. Department of the Army, Corps of Engineers.

2. Foreign Trade Statistics of Bureau of the Census, U. S. Department of Commerce.

3. MARAD Studies, Office of Ports and Systems.

4. CBS News

5. Census Director George Hay Brown (mid-1971)

6. "Urban Population Growth Trends in Latin America.". Inter-American Development Bank, November, 1975.

7. MARAD, Office of Ports and Systems.

8. D. O. T.; A. A. R.; A. W. O.

9. MARAD, Office of Ports and Systems.

10. Annual Report of Committee XI, Foreign Commerce, AAPA, September 30, 1971.

11. Dun and Bradstreet U. S. Map "Manufacturing Establishments in the United States.

12. Paper by Alfred Hammon, Chairman, Committee of Ship Channels and Harbors, AAPA. (draft of January, 1976).

13. Tidelands Case, U. S. Supreme Court, about 1948 (AAPA testimony).

14. "North American Port Development Expenditure Survey", MARAD, March, 1974.

15. Presentations of U. S. Army Corps of Engineers to Committee IV, Construction and Maintenance, AAPA, Denver, June, 1969.

16. Office of the Chief of Engineers, 1970, plus appropriations since.

17. U. S. Coast and Geodetic Survey.

18. AAPA estimate, 1969.

Port Authority Data Sources

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ADDITIONAL DATA SOURCES

TRADE STATISTICS:

"Waterborne Commerce of the United States", issued annually by the Department of the Army, Corps of Engineers, in five volumes:

Part 1. Waterways and Harbors - Atlantic Coast

Part 2. Waterways and Harbors - Gulf Coast, Mississippi River and Antilles.

Part 3. Waterways and Harbors - Great Lakes.

Part 4. Waterways and Harbors - Pacific Coast, Alaska and Hawaii.

Part 5. National Summaries.

"Highlights of U. S. Export and Import Trade" (FT990) Issued monthly. U. S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census.

PORT FACILITIES:

MARAD, Office of Ports and Systems. A national inventory of physical facilities is maintained.

PORT AUTHORITIES:

"Management of a Seaport", National Maritime Research Center, M. J. Schwimmer and Paul A. Amundsen, NTIS # COM-74-11786.